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AMERICAN NURSERYMAN

Chief Exponent of the American Nursery Trade

Vol. LIX No. 3

FEBRUARY 1, 1934

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Growing Evergreens under Cloth

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Comments on Less Common Varieties

AMERICAN NURSERYMAN PUBLISHING CO.

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AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

F. R. KILNER, Editor

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EDITORIAL communications on subjects con-
nected with nurseries, arboriculture or other
phases of commercial horticulture are welcomed
by the editor. Also articles on the subjects and
papers prepared for conventions of nursery
associations.

GROWING interest in rock gardens and
rock garden plants is reflected in the in-
creased space devoted to these materials
in the new catalogues of seed and nursery
firms.

THE oriental fruit moth, once described
as the greatest orchard insect mystery, is
yielding to an attack of insect parasites
which were released against the moth
throughout western New York during the
past six years.

POSTAL authorities call attention to the
fact that the special delivery fee for let-
ters in Canada is 20 cents, not 10 cents
as in this country. A large number of
letters destined for Canada are mailed in
the United States with only a 10-cent
special delivery stamp affixed; these do
not receive the desired service.



The Mirror of the Trade

THE OUTDOOR SALESROOM.

To the problem of production, or
overproduction, which faces most nurs-
erymen, the solution is more direct at-
tention to sales. Not merely the im-
mediate disposal of the output of the
individual nursery, but the transfer of
the stock to the ultimate buyer, fre-
quently called the consumer.

In the past, the final disposal of
nursery stock has been left, to an amaz-
ing degree, in the hands of those who
knew much less about it than the man
who produced it. One need not hark
back far to the day of agents who took
orders without more knowledge than
that they gained from reading the cata-
logue—though some were far above that
criticism. And catalogues have been pre-
pared with shears and pastepot, too
frequently, instead of written with the
grower's knowledge and of enthusiasm
for his stock. More recently, the de-
partment store, the hardware store, the
corner grocery and the mail-order house
have been used to move the nursery-
man's products. There they joined hun-
dreds of inanimate items in order
clerks' hands and lost the characteristic
which makes them valuable—that of a
living thing.

Realization that plants which will
grow merit a better medium of sale
has prompted more than one thinking
nurseryman to set up his own salesroom.
On many highways now are plantings of
nursery products that display not only
the beauty of specimens, but also the
use of material in ornamental planting.
Such spots are the best of advertising
in days of motoring, for they stop the
transients, and they are likewise excel-
lent sales media, for they stimulate the
public to buy and make it easy to do
so. As spring approaches, retail nurs-

erymen in advantageous locations
would do well to plan and plant an out-
door salesroom, if they have not one
already.

OMIT OPEN PRICE CLAUSES.

Debate among nurserymen for the in-
clusion or omission of the open price
clause in their marketing agreement
and code seems definitely ended by the
order of the national recovery adminis-
trator, Hugh S. Johnson, to his deputy
administrators to omit open price claus-
es in all codes which they approve
within the next sixty days, thus capit-
ulating for a second time to the N. R. A.
critics in congress.

Snarled in a mass of criticism and
proposals over N. R. A. price-fixing
powers and the ruinous effect these
powers have on small businesses, Gen-
eral Johnson announced he would lay
the whole tangle before a conference
of code authorities which he plans to
hold this month.

Meanwhile, he advances his own plan
for manipulating price schedules un-
der the N. R. A. in a manner which
he believes will avoid strangulation of
small enterprises. He proposes a post-
ing of prices and an industry-wide com-
pact not to sell below cost of produc-
tion, with the right reserved to any
business man to get all of his competi-
tors' price data and complain if he
thinks the compact is being broken.

The order issued on open price
clauses by General Johnson instructed
the deputy administrators that they
were free to approve codes with such
clauses only if the prices posted under
the codes were to become effective for
the industries immediately. Previously
the prices posted were not to become
effective until after ten days.

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AMERICAN NURSERYMAN

[Registered U. S. Patent Office]

The Chief Exponent of the American Nursery Trade

*The Nurseryman's Forte:
To Make America More Beautiful and Fruitful*

Vol. LIX

FEBRUARY 1, 1934

No. 3

Show Optimism at Western Meeting

**Improvement in Business Reflected at Convention
of Western Association at Kansas City Last Week**

Although the attendance at the forty-fourth annual meeting of the Western Association of Nurserymen, held at Kansas City, Mo., January 23 to 25, was not so large as that at many previous gatherings, the spirit of optimism was in marked contrast to the meeting of the association held in 1933. A year ago the convention closed with rather a cheerless outlook; business had been poor the preceding season and there was no sign of improvement in the near future. At last week's convention reports were general of inquiries received and orders booked. One retail nurseryman said his business had shown an increase of 122 per cent from January 1 to January 15 this year over the same period in 1933. The change in the spirit of the public was considered evidence that improvement had actually taken place in business affairs.

Fifty-seven delegates were registered from these eight states: Minnesota, Iowa, Nebraska, Oklahoma, Texas, Alabama, Kansas and Missouri.

Retailers' Session.

Business sessions were held the afternoons of January 23, 24 and 25 in the Aztec room of the Hotel President. Luncheon preceded the meeting each day. On Tuesday afternoon, January 23, the retail nurserymen of the association held their meeting. A. E. Weston, Neosho, Mo., president of the association, presided. Reports of business conditions were given by each delegate. These reports, without exception, reflected interest on the part of agents and customers.

Franklin Rose, landscape engineer of the Kansas highway commission, sketched some of the work being done in highway improvement in Kansas. This work was started last September, Mr. Rose said, and there was nothing in the way of a definite plan to guide those in charge of the project. Attention has been given to beautifying short stretches of highway and approaches to cities. Extensive planting has been done in some places. Kansas has mile after mile of 6-foot right of way on each shoulder.

Planting can be done on private property where easements can be secured. Resident engineers have been urged to interest property owners and residents along highways in saving trees now

growing. Part of the highway commission's work is the inspecting of specimen trees so they may be saved. Contracts are being given to nurserymen and all of the stock purchased must conform to specifications and undergo inspection. Kansas is spending \$50,000 this year. This amount is one-half of one per cent of the ten million dollars appropriated by the federal government.

Mr. Rose urged nurserymen who bid on these contracts to do a good job.

Following Mr. Rose's talk, President Weston appointed C. G. Marshall and J. Frank Jones a committee to report on stock and prices. A discussion of the nurserymen's code was led by Henry B. Chase, Chase, Ala., and Paul Stark, Louisiana, Mo.

General Meeting.

At the opening session of the entire group Wednesday, January 24, President Weston submitted his annual report and appointed temporary chairmen for the convention. George W. Holsinger, secretary-treasurer, read the minutes of last year's meeting and gave his report.

F. W. Sayers, assistant maintenance engineer of the state highway commission of Missouri, read a paper on "Highway Beautification." Colored slides were shown to give some idea of what has been accomplished in planting Missouri highways. An informal discussion followed and Mr. Sayers answered questions pertaining to the work and plans for the future. Missouri's appropriation from the government is approximately twelve million dollars, of which one-half of one per cent must be spent within the year on highway beautification. In some localities additional funds have been raised for labor. A fine spirit of coöperation and appreciation has been shown wherever work has been inaugurated, Mr. Sayers said.

At the conclusion of Mr. Sayers' talk a discussion arose concerning the practice of planting shade trees and pruning the same at the time of planting. It was the consensus of the convention that shade trees, if extremely tall, should be headed back at the time of planting.

Merle Smith, Kansas City, who was to have spoken on "Business Conditions," was out of the city. R. E. McDonnell, of Burns & McDonnell, con-

sulting engineers of Kansas City, gave a talk on Boulder dam.

Bruce Elected President.

Thursday's session opened with the report of the committee on nominations and the election of officers. A. J. Bruce, Des Moines, Ia., was elected president; William Weber, Afton, Mo., vice-president, and George W. Holsinger, Rose-dale, Kansas City, Kan., secretary-treasurer. The executive committee is composed of J. Frank Jones, Lawrence, Kan.; George L. Welch, Jr., St. Joseph, Mo.; Robert Scott, Manhattan, Kan.; Ralph Skinner, Topeka, Kan.; C. C. Smith, Charles City, Ia., and Charles Williams, Kansas City, Mo. A. J. Bruce, Des Moines, Ia., was chosen delegate to the convention of the American Association of Nurserymen, and Arthur E. Willis, Ottawa, Kan., was chosen for alternate.

The appointment of committees for the year was held over until later.

C. C. Mayhew, Sherman, Tex., president of the Southwestern Nurserymen's Coöperative Association, gave an interesting account of the organization and its purposes.

The rest of the session was devoted to a general discussion of the nurserymen's code, with Henry B. Chase and Paul Stark leading. A recommendation was made that the code should contain matters relating principally to the wholesale trade.

State Associations Convene.

Meetings of the Kansas and Missouri state associations were held in the Hotel President Thursday morning, January 25.

E. P. Bernardin, Parsons, Kan., is president of the Kansas association. Charles A. Scott, Topeka, Kan., is secretary. Routine matters were discussed by this group in a brief session. Officers of this group will be elected at the midsummer meeting.

The Missouri association approved the nursery code and open prices. Discussion of uniform state fees for interstate shipments showed a strong sentiment for this plan. Carl Dawson, chief plant inspector for the state, was present. George L. Welch, Jr., St. Joseph, Mo., president of the Missouri association, and William A. Weber, secretary, were reelected. J. E. K.

OKLAHOMA STATE MEETING.

Speakers Look Ahead.

The Oklahoma State Nurserymen's Association met January 10, in its thirteenth annual midwinter convention, at the Huckins hotel, Oklahoma City.

The president's address, by Leo Conard, recalled some of the hardships the nurserymen have gone through in the past few years, but he predicted better times.

C. E. Garee was the first on the program with "Looking to the Future as Nurserymen." He advised members to take all things into consideration and not just the money received. He said nurserymen should recognize their responsibility to spread cheer and beauty.

W. E. Rey said that the changed conditions were making it possible to have more time at home, and people were taking advantage of this to move out to small acreages and orchards were being planted on these small tracts.

Jim Parker read the returns from questionnaires that he had sent out in 1913 and in 1922 showing opinions as to best varieties of fruits. He said that fewer varieties would give the buyers better service and would be more profitable to the nurserymen. After this talk Mr. Woods suggested a committee be appointed for further work on revising variety lists. Jim Parker was appointed chairman of the committee with power to select his helpers. His dues were refunded as advance on expense of the work.

Prof. R. A. McGinty, head of the horticultural department at the A. & M. College, Stillwater, spoke on the college's cooperating with nurserymen.

Officers Elected.

The election of officers resulted in the choice of C. E. Garee as president; A. W. Kenyon as vice-president, and Mrs. Jim Parker as secretary-treasurer. To the executive committee were elected J. F. Semtner, N. D. Woods, V. E. Ryan, C. Y. Higdon and Leo Conard.

A. G. Hirsche spoke on nuts and advised the planting of improved black walnuts as well as pecans.

N. D. Woods made a good talk on competition in the nursery trade and suggested that it would be well for all to compete in better quality than cheaper prices.

A. W. Kenyon outlined the purposes of the Oklahoma City Retail Nursery Association. He said that the members are stabilizing prices, services and labor wages and are pleased with the results.

In the absence of E. L. Baker, E. F. Fuller spoke on what the Southwestern Coöperative Association hopes to do. His talk led to a discussion of the benefits the nurserymen of Oklahoma might expect from membership. There was nothing decided but a call for a closed meeting of nurserymen, just after adjournment, to discuss this subject.

"The Landscape Man and the Nursery Trade" was the topic of J. A. Maddox, who hoped for a better understanding between them. He said that the landscape men should confine their services to plans and not try to buy stock at wholesale to furnish on their plans.

The summer meeting for 1934 will be held at Stigler.

After the meeting adjourned, the

members went immediately into a closed session to discuss the Southwestern Coöperative Association. Nothing was decided but that study be made of the association and if it seemed good an effort be made to secure all of the Oklahoma nurserymen as members, but if it was thought to be unprofitable, that an effort would be made to have no members in Oklahoma, as the prices and wage scale made hard competition for Oklahoma nurserymen.

TENNESSEE APPROVES CODE.

At the annual meeting of the Tennessee State Nurserymen's Association at the Hermitage hotel, Nashville, January 17 and 18, E. E. Chattin, Winchester, was elected president, to succeed John Ray Bragg, McMinnville. R. H. Jones, Nashville, was elected vice-president, and G. M. Bentley, Knoxville, was reelected secretary-treasurer for the twenty-sixth time.

John Frazier, Jr., Huntsville, Ala., discussed the nurserymen's code. After his address the floor was open for general discussion concerning the code, and the organization went on record as unanimously adopting its principles.

Dr. Brooks Drain discussed his discoveries with reference to "bud sports," a study which he has been making for a number of years at the agricultural experiment station. He pointed out the desirability of nurserymen's obtaining buds which have been carefully selected and cultivated.

O. E. Van Cleave, commissioner of agriculture, praised the industry both from the standpoint of its ability to provide a livelihood and in its beautification of the state.

A. L. Rawlings, manager of the Nashville office of the federal land bank of Louisville, said that nursery land up for loans will be appraised on an agricultural basis with as much as twenty per cent added. He also stated that the Louisville office is receiving about 400 applications for loans daily and that the work there is progressing rapidly, although there is still much to be done.

Others taking part in the program were S. N. Varnell, Cleveland; Lee McClain, Knoxville; E. E. Chattin, Winchester; William R. Pouder, Nashville, and Harry Nicholson, Decherd.

SOUTH DAKOTA MEETING.

The South Dakota Nurserymen's Association met at Dell Rapids, S. D., January 16 and 17. In discussion of the marketing agreement and code, there was some question as to the clause on open prices, but at length a motion was made and carried that the association go on record as favoring the general principle of the proposed article on open prices.

The members discussed at length the state law passed by the last legislature which appropriated funds to operate in conjunction with the Clark-McNary tree planting act and were advised that the law went into effect too late to get the funds to be matched by the federal set-up.

George W. Gurney, of the George W. Gurney Nursery, Yankton, S. D., became a member and was made a member of the executive committee.

J. B. Taylor, Secy.-Treas.

AMERICAN NURSERYMAN

ORGANIZE IN MARYLAND.

The Maryland Nurserymen's Association was formed January 12 at a meeting at College Park, Md. Officers were elected, and a meeting February 1 after the nurserymen's short course at College Park was planned.

Director Patterson, of the Maryland state experiment station, opened the meeting and gave a short talk on the aims of an organization of nurserymen. Jesse P. King, of the Ridgeville Nurseries, was elected temporary chairman, and Henry Hohman, of the Kingsville Nurseries, was elected temporary secretary. The latter, with William B. Garrett and M. G. Coplen, formed a committee to select permanent officers. These were chosen as follows: President, Jesse P. King; vice-president, Elliott Wheeler, of the Canterbury Nurseries; secretary and treasurer, Julian J. Chisolm, Jr., Garrett Park. Named on the executive committee were Henry Hohman, William B. Garrett, Frank Primrose, C. W. Price, Sr., and Mr. Coplen.

Dr. Corey, W. C. Price, Sr., and Prof. A. S. Thurston addressed the meeting about the arboretum to be established at the university at College Park and about the part to be played by the state nursery in the distribution of trees.

NEW YORK RETAILERS ON CODE.

Three groups of nurserymen in New York state, with an approximate total membership of 100, have joined to issue a lengthy comment upon the nurserymen's marketing agreement and code. The title of the groups is given as the Allied Retail Nurserymen's Associations, with the secretary's office at box 278, Poughkeepsie, N. Y. The affiliated organizations are the Capitol District Nurserymen's Association, the Westchester County Association of Retail Nurserymen and the Central Hudson Retail Nurserymen's Association.

While numerous changes are recommended in various provisions of the code and agreement, discussion of the open price plan takes first place in the communication. Opposing the open price plan, the allied associations recommend that a differential should be established between resale and consumers' rates, and also between resale and re-wholesale rates. A further recommendation is that compiling of lists and prices be confined to a list of plants to be prepared by each regional executive committee, so that such varieties will be excluded as, in the opinion of the committees, are not sufficiently common in the trade to give rise to any appreciable degree of unfair competition.

MEET AT MINNEAPOLIS.

A meeting of the Twin City Nurserymen's Association was held last month at the office of Harry Franklin Baker, Minneapolis, Minn., under the chairmanship of President H. Reid. A long session was occupied with matters relating to the nurserymen's code. The meeting was closed to all but members of the association.

The next meeting will be held at University Farm, St. Paul, Minn., early in February, when members of the division of horticulture and nursery inspection department will provide the program.

Code Debate Features State Meetings

Actions of New York and Other Associations Indicate Divergent Attitude of Trade Members

The annual meeting of the New York Nurserymen's Association was held January 17, at the Hotel Seneca, Rochester. Secretary C. J. Maloy reported an active membership of fifty-seven, with five associate members. His report as treasurer showed a balance on hand in the general account of \$61.69, and in the special code account the balance on hand was \$237.65. However, disbursements for code expense to the amount of \$248.55 had been met out of the general fund. Secretary Maloy reported that 1,300 nurserymen in the state of New York were solicited for funds to carry on code work; forty-six responded, at \$10 each.

President Don Brown then announced that the meeting was open for discussion, pro and con, of the nurserymen's marketing agreement and the supplementary code of fair competition. The whole meeting, he said, was designed for code discussion, no addresses on other subjects having been planned. Morris J. Dee, Newark, N. Y., led the discussion on code matters.

William Pitkin took exception to sections 4c and 4e of article VI of the marketing agreement, regarding retail terms and delinquent accounts. He said that he could not see how an agency nurseryman could work under that section.

After some discussion, he moved that a committee be appointed by the president to draw up a resolution to clarify the two sections, such resolution to be forwarded to the National Planning Committee and the eastern regional committee. President Brown appointed William Pitkin, chairman; W. J. Maloney and Morris J. Dee.

Criticism of the open price plan was general. Mr. Pitkin proposed that the New York association go on record as opposed to the plan, a suitable resolution to that effect to be sent to the National Planning Committee and the eastern regional committee. President Brown instructed the newly appointed committee of three members, headed by Mr. Pitkin, to act on this resolution, also.

Institutional Activities.

Dr. Harold B. Tukey, who is in charge of nursery stock investigations at the state experiment station, stated that he had come to Rochester to speak to the nurserymen and to find out in what they were especially interested. The station's appropriations having been decreased, it was necessary to dispense with some of the investigational work, and he wanted to find out in which subjects nurserymen were most interested.

Donald Wyman spoke about the forthcoming fourth annual nurserymen's conference, to be held at Cornell University, January 23 to 25, and invited all those present to attend the sessions. At last year's conference, Mr. Wyman stated, fifty nurseries were represented, from six states.

Paul Fortmiller opened the afternoon session with remarks on "Highway Beautification and Improvement." Mr. Fortmiller said: "Last summer when the National Planning Committee was in Washington several projects came to our attention—the erosion-control program and the federal appropriation for high-

way construction, under which program a definite plan for roadside beautification was recommended. As New York state was planning to qualify for its share of this federal money, a committee of three, Edward Costich, Edward Rouen and myself, went to Albany to contact the commissioner of highways of New York. We found that no plans had been made for application of this money for roadside planting and improvement. New York state was to secure \$22,000,000. Captain Brandt, of the highway department, went to Washington regarding the money New York was endeavoring to qualify for and found out that it would be necessary for the state to carry on a definite program of highway improvement. As the matter stands now, there will be ten different highway improvement projects carried out in New York state this spring. The money has been allocated to the different highway districts, of which there are ten in the state, on the basis of \$10,000 to each district. The conservation department and the highway department have in their files the names and addresses of various nurserymen. It was their original plan to advertise these different projects for bids, but they have decided to send out the various bids for different districts to nurserymen whose addresses they have in their files, and they have been furnished by this committee with a list of the members of the New York Nurserymen's Association, so that proposal blanks for bids will be sent to all members of the New York association. No bids will be accepted from nurserymen outside the state. It is expected that projects will be ready by February 1."

Resolutions on Code.

Mr. Pitkin next presented the report of the special committee appointed by President Brown to draw up suitable resolutions for presentation to the National Planning Committee, which was adopted, as follows:

At the regular annual meeting of the New York Nurserymen's Association, held in Rochester, N. Y., January 17, 1934, the following resolutions were adopted:

Resolved, That it is the sense of this meeting that the proposed open price plan is impractical and unworkable in this industry handling perishable products. This industry has thousands of producers, thousands of items or articles and many sizes and grades of each item and also many and varying methods and channels of distribution. For these reasons we are opposed to the open price plan and direct that this action be transmitted by the president and secretary to the eastern regional committee and the National Planning Committee.

Resolved, That it is the sense of this meeting that the marketing agreement and code of fair competition be approved, with the following changes: Article VI of the marketing code, section 4, paragraph c, insert the word "advertised" before the word "maximum" so that the paragraph will read: "The advertised maximum retail terms of sale shall be thirty days net," etc. Article VI, section 4, paragraph e, shall be canceled and the following paragraph substituted: "When accounts are past due, no further shipments shall be made on credit."

Plea for Larger Membership.

Mr. Fortmiller made a plea for increased membership for the New York association during 1934, suggesting that special effort be made to induce the other three organizations in New York state to join or closely affiliate with the New York association, so as to make it truly representative of the entire state. The

other three associations are the Long Island Nurserymen's Association, the newly organized Westchester County Association of Nurserymen and the Capitol District Association, recently changed to Hudson River Valley Association. The New York state association is the only one affiliated with the American Association of Nurserymen.

Secretary Maloy announced that a former president, Don Williams, was ill at the Genesee hospital, with heart trouble, but that he was now well enough to receive visitors, and urged members who knew him to make him a visit.

In memory of those members who had departed during the year, Charles J. Brown and C. L. Boothby, and of Prof. C. J. Hunn's mother, whose death prevented Professor Hunn from attending the meeting, the convention stood silent for one minute.

Officers Elected.

The nominating committee, Paul Fortmiller, E. H. Bowden and Philip Farber, presented the following slate:

President—Morris J. Dee, Newark, N. Y.

Vice-presidents—W. J. Maloney, Dansville; E. H. Costich, Queens Village; Robert T. Brown, Rochester; H. T. Maxwell, Geneva.

Secretary-treasurer—C. J. Maloy, Rochester.

Executive committee—D. C. Brown, Paul Fortmiller, E. H. Bowden, Philip Farber.

Representative to national convention—Paul Fortmiller; alternate, Don Brown.

The secretary was instructed to cast one ballot electing the aforementioned officers.

The new president, Morris J. Dee, took the chair and thanked the members for the honor. He said he felt a little out of place, for he was not a practical nurseryman. He added that at the recent organization of a post of the American Legion in Newark he had been elected chaplain, so that he felt no more of a misfit in his present office than he did in the other.

President Dee suggested holding the summer meeting of the New York Nurserymen's Association in New York city at the time of the A.A.N. convention next July, stating that, in his opinion, this would prove an excellent opportunity of contacting and affiliating the four nursery trade associations of New York state.

After a brief discussion of code administration costs, the meeting adjourned.

At a recent social meeting of the Oklahoma City Retail Nurserymen's Association, a campaign to promote planting of more trees on the streets of Oklahoma City, Okla., was discussed. V. E. Bryan is president of the association.

A MEETING of the Rocky mountain regional group of nurserymen was held at the Cosmopolitan hotel, Denver, Colo., January 6. About fifty were present at the session; the nurserymen's national code was approved except for the clause pertaining to retail credits.

More Conventions Coming

WISCONSIN PROGRAM.

The annual convention of the Wisconsin Nurserymen's Association will be held Saturday, February 10, at the Republican hotel, Milwaukee, Wis. L. J. Baker, of the Baker Nursery & Seed Co., Fond du Lac, president of the association, will preside. A business session for members only will be held in the morning, starting at 9:30 a. m. A special luncheon will be held at noon.

The afternoon session will be open to all. The program for this event is as follows:

FEBRUARY 10, 1:30 P. M.
 "President's address, by L. J. Baker."
 "Legislation Needed to Control Unfair Competition," by L. E. Hammersly, lawyer, Milwaukee. Discussion to be led by E. H. Niles.
 "State Nursery Inspection," by E. L. Chambers, state entomologist. Discussion to be led by N. A. Rasmussen.
 "The Forestry Problem," by Mr. Trenk, of the University of Wisconsin. Discussion to be led by Thomas Pinney.
 "Accomplishments of the Wisconsin State Horticultural Society with New Plant Testing," by J. J. Rahmlow, secretary. Discussion to be led by James Livingstone.
 "The Low-down on the Nurserymen's Code," by W. G. McKay. Discussion to be led by Charles H. Hawke, Jr.

PROGRAM FOR MICHIGAN MEET.

The annual convention of the Michigan Association of Nurserymen will be held February 13 and 14 at the Detroit-Leland hotel, Detroit, Mich. The program for the convention is as follows:

FEBRUARY 13, 10 A. M.
 Address by the president, Martin Frissel, Muskegon.
 Secretary-treasurer's report, by N. I. W. Kriek, Lansing.
 Report of the legislative committee, by Ralph I. Coryell, Birmingham.
 Discussion on present and future policy of the association toward higher nursery license fee.
 Public properties as outlets for plant materials. The Michigan Association of Nurserymen as a promoter of interest in more beautiful public gardens, parks and boulevards. What can the individual member do to help this movement? Discussion led by Martin Frissel.
 Luncheon. This luncheon will take the place of the annual banquet. All members and their friends are invited to take part in this luncheon.

FEBRUARY 13, 1:30 P. M.
 Murray D. Van Wagoner, state highway commissioner, will speak on highway improvement and beautification in Michigan.

Report of progress of the Highway Improvement Council, sponsored last year by the Michigan Nurserymen's Association, by Martin Frissel.

"The National Nurserymen's Code—What We Can Be Looking For within the Next Few Months," by Bert J. Manahan.

Nursery crops are taxed as personal property, while other crops are exempt. What the association membership must do to remove this discrimination against nurserymen: Report of taxation committee.

"Intelligent Cooperation among Nurserymen to Promote Salesmanship Rather than Price-cutting. Plantsmanship and Selling Methods." Speakers to be announced at time of meeting.

FEBRUARY 14, 10 A. M.
 "Price Trends and Supply of Stocks," by Harry Malter.

"New Thoughts on Propagation in Order to Meet Future Competition from Nursery Centers Where Soil and Climatic Conditions Favor Certain Lines." Discussion led by Arthur Watson.

"How the New Deal Will Help the Nursery Trade," by Judge Arthur J. Lacy.

FEBRUARY 14, 1:30 P. M.
 "Capitalization of Nurseries with Government Help," by an authority on the subject, to be announced later.

Open discussion on how some municipal nurseries go in direct competition with the legitimate nurseryman. Members are asked to furnish cases, if any, where they had to compete with such nurseries, so that the association can secure their cooperation.

Round-table discussion, suggestions from members on subjects they wish the association to act upon.

Unfinished business, election of officers.

OTHER MEETING DATES.

The annual meeting of the Pennsylvania Nurserymen's Association will be

held at the Penn-Harris hotel, Harrisburg, Pa., February 7 and 8.

The Rhode Island Nurserymen's Association will meet February 7 at Providence.

The Eastern Nurserymen's Association meets at the Stacy Trent hotel, Trenton, N. J., February 2.

The New England Nurserymen's Association met at the Statler hotel, Boston, January 30 and 31, as this issue of The American Nurseryman was going to press. Full reports of these gatherings will appear in the next number.

SCHOOLS IN NEW YORK STATE.

The first school for florists, nurserymen and gardeners in Westchester county, N. Y., will be held at County Center, White Plains, February 5 and 6. This course is sponsored by the Westchester county farm bureau, for which M. E. Buckley is agent. All the speakers are from Cornell University. The program includes a session February 5 for those interested in estates and garden clubs; a morning session February 6 for nurserymen, and an afternoon session February 6 for florists.

The third annual school for florists, nurserymen and gardeners to be held in Nassau county, Long Island, N. Y., will take place at the State Institute of Applied Agriculture, Farmingdale, February 7 to 9. This promises to be one of the largest of its kind in the country, since the attendance has been growing each year until an average of 110 growers was present each day last year.

The course is sponsored by the Nassau county farm bureau, for which H. H. Campbell is agent. The speakers are all from Cornell University. Anyone interested in the lectures may attend. The program includes a whole day—February 7—for florists; another for those interested in estates and home gardens, on February 8, and another on February 9 for nurserymen.

PEONY AND IRIS GROUP MEETS.

The first meeting of the Minnesota State Peony and Iris Society scheduled since its incorporation as a state organization was held Tuesday, January 9, at the Nicollet hotel, Minneapolis, Minn. Several out-of-town members were present, including A. M. Brand, Faribault; John M. Kleitsch, Duluth; Lloyd Pfeiffer, Winona, and W. F. Christman, Northbrook, Ill., secretary of the American Peony Society, who spoke on the 1934 national show.

Glen H. Greaves, St. Paul, president, was in the chair, supported by all the officers, including Mrs. H. B. Tillotson, Minneapolis, secretary-treasurer. An election resulted in the remaining of all the principal officers—Glen H. Greaves, president, and A. J. Wilkus and Mrs. J. Taylor, first and second vice-presidents, respectively. The members also refused a suggestion for a change of secretary.

President Greaves announced that as the articles of incorporation favor an increase in directors, the proper number should be decided upon before the election began. After some discussion, the board was increased to twelve. The

voting resulted in the election for two years of A. M. Brand, Faribault; T. E. Carpenter and Mrs. Gowen, St. Paul; John M. Kleitsch, Duluth; L. Pfeiffer, Winona, and L. R. Fischer, Minneapolis. For the one-year term, Messrs. Lindgren, Schreiner and Mackintosh, St. Paul; Mr. Blanchette and A. B. Franklin, Minneapolis, and Judge C. W. Bunn, White Bear, were elected.

Reports on the national show to be held in St. Paul in June were presented by Messrs. Brand and Wilkus. Mr. Brand stated that the convention committee of the St. Paul Peony and Iris Association will furnish the big hall at the Auditorium, supply considerable labor and do everything possible to advertise the event.

A brief talk on new varieties was another contribution from Mr. Brand, who said there are several new varieties which, in the next few years, will surely displace some older ones. Mary B. Vories has been known for about four years and is undoubtedly the finest white, he said. Mrs. W. M. Gunn is a dark pink of the Milton Hill type, but is erect and a fine flower. Mrs. W. M. Gunn, while not quite so good as Mary B. Vories, is a splendid show peony. Mrs. Edlund is another fine clear white, as is A. B. Franklin. Several new hybrids between P. albiflora and officinalis, raised by Mrs. Saunders, Clinton, N. Y., will probably take an important place in future shows. Some of them have red or pink guard petals and resemble Japanese peonies.

Peony rot has been bad for several years in practically all parts of the country. It shows as a black rot at the juncture of the crown and bud. The following year the rot shows up as a soft rot, quite slimy, in fact. This rot has been the cause of many poor flowers, as the plant is thoroughly weakened by the disease. Formaldehyde has been satisfactory in eradicating the disease.

MINNESOTA NURSERYMEN.

Edwin Swenson, nurseryman of St. Peter, Minn., was one of the growers who made University Farm, St. Paul, his home for several days during the annual farmers' program January 15 to 19. Mr. Swenson reports that his business last fall was good. Some of the orders were extensive, and it was impossible to complete one or two, because of the cold weather. The only nurseryman in a large district, this grower always has considerable business from the state institution at St. Peter. In addition, he has numerous clients among the doctors and nurses. Some extensive work in connection with procuring additional water for the nursery was begun last fall.

H. J. Reid, landscape architect with Holm & Olson, Inc., St. Paul, was one of the speakers in connection with the recent horticultural program at University Farm. Franc P. Daniels, Long Lake; T. A. Aamodt, state inspector for the nursery inspection department, and J. D. Winter, secretary of the Minnesota Fruit Growers' Association, were also among the list of speakers.

F. E. Cutting, nurseryman of Byron, Minn., was in the Twin Cities on business January 22. He is hopeful regarding the business outlook for the spring. While here, Mr. Cutting paid a visit to University Farm to see his eldest son, who is a senior in the school of agriculture.

Short Courses at Cornell and Ohio State

Talks and Discussions at State Institutions Present Much Valuable Data in Few Days

CORNELL CONFERENCE.

Fourth Nurserymen's Program.

The fourth annual nurserymen's conference at Cornell University, Ithaca, N. Y., was a highly successful affair. Nurserymen attended from Connecticut, Massachusetts, Pennsylvania and Ohio, a fact that proved important when it came to discussion groups. Several different nurserymen's organizations were represented, so when certain vital matters were under discussion different viewpoints were brought out.

Dr. J. E. Boyle, of the department of agricultural economics at Cornell University, discussed the A. A. A. and its probabilities of success.

Fruit Production Data.

Dr. M. P. Rasmussen, also of Cornell University, gave definite and startling information on "Some Aspects of the Competition and Demand for Fruit Trees." Dr. Rasmussen recently conducted a survey of the west and south on this problem. He showed that in general there was a twenty per cent decrease in the amount of barreled apples in 1930 as compared to 1920 and that this decrease varied in all apple-producing states except in New Jersey, where there was a seven per cent increase. Boxed apples decreased slightly more.

In peach trees, there was an increase in 1930 as compared to 1920 of about nineteen per cent in the north central states, an increase of fourteen per cent in California and a decrease in the south Atlantic, south central and northeastern states of about twenty per cent.

The figures for pear trees were interesting. In New York the number of pear trees had decreased thirty-five per cent and in New Jersey, seventy-five per cent, but in Washington they had increased 103 per cent. In Oregon there was an increase of fifty-seven per cent and in California an increase of sixty-seven per cent.

Cherries and Grapes.

In sour cherries there had been a twenty-two per cent decrease (on the average) except in Michigan and Wisconsin, where the number of trees had increased. There seems to be a great demand for sweet cherries from California, Oregon and Washington, where the number of trees had increased over fifty per cent.

The number of grapevines, is, of course, being increased today. This was true even in 1930. New York was the largest producer of American grapes. Other American grape-producing states showed an increase of about thirty per cent, except Arkansas, which had an increase of 680 per cent in the number of vines in 1930 as compared to the number in 1920. California, the largest producer of European grape varieties, had an increase of forty-eight per cent.

The most startling figures for northern nurserymen were those on grapefruits and oranges. Every state producing these crops had increased the number of

trees by 1930. Texas had increased the number of orange trees 1,918 per cent and the number of grapefruit trees 3,589 per cent. The number of orange trees in all orange-producing states had increased sixty-two per cent in 1930 and grapefruit, 201 per cent. Of course, a part of this represented nonproducing trees, but when they bear, it will be a decided blow to the apple, peach and pear industry. Northern nurserymen growing the latter group of trees can well afford to watch this tremendous growth of the citrus fruit industry, the speaker said.

Several speakers discussed the value of public properties as outlets for plant materials.

Distinctive Material.

Harlan P. Kelsey, East Boxford, Mass., gave an interesting illustrated talk on thirty-six of the newer plants that he believes nurserymen can well afford to grow. As he is in close touch with the newer introductions at the Arnold Arboretum, his suggestions were timely.

Prof. R. W. Curtis, Cornell University, discussed about seventy-five "Peculiar Landscape Plants." When these are used, he said, one should pause a moment to consider just what is peculiar to them. They may be too positive in form or color—or too particular, because they are tender. They may be weak-wooded, subject to trouble by insects or diseases or require acid soil or other special growing conditions. Most of these plants are in fairly general use in the nursery trade. The qualities peculiar to each plant may not be generally known to the public, but the nurseryman should know them and pass them on.

Trade Figures Reported.

Dr. E. G. Misner, of the department of agricultural economics at Cornell University, talked on "The Business Side of the Nurserymen's Problem," using data obtained from New York state nurserymen. He had sent questionnaires to a large number of New York state nurserymen, asking for confidential information concerning their respective businesses. Though the percentage of replies received was small, the conclusions drawn are interesting. It is hoped that many nurserymen who have not yet returned these questionnaires will do so, as it is only by so doing they can receive the benefits from such a survey. All results are strictly confidential. Some of the points brought out were:

In New York state there are about four times as many greenhouse businesses as nurseries (1930 census). The greenhouses employ two and one-half times the capital of the nurseries in New York. Of the nurseries answering the questionnaire, about sixty-four per cent of the total acreage was devoted to evergreens, twelve per cent to deciduous shade trees, seven per cent to deciduous shrubs and three per cent to fruit and nut trees.

The average value of the real estate was \$37,958; of the plants, equipment, etc., \$41,976. The average receipts for the past year were \$11,487, fifty-four per cent of which came from evergreens. Of

the average operating expenses (\$10,929) forty-nine per cent went for labor, seventeen per cent for the purchase of nursery stock, five per cent for taxes and three per cent for insurance.

Taking 100 as the price index for nurserymen's stock in 1929, 59 was its equivalent in 1933. The national income in 1933 was only sixty per cent of that in 1929. Price received for dairy products was only 54 as compared to 100 in 1929; for meat, 40; grains 65, and fruits and vegetables, 72. The decline in the price of nursery products is about the same as for other farm products.

Incidentally, Dr. Misner pointed out that if the price of gold is increased, as is being tried now, a rise in prices should result. Indications point strongly to the fact that this has been true so far this year.

The conference ended with a special luncheon, at which Dr. L. H. Bailey, dean of American horticulture, gave a talk on his present work.

An added point of interest at the conference was an exhibition of 400 excellent photographs of woody plants, mostly specimens. These were supplied by the Rochester park system, the Poughkeepsie Nursery Co., Poughkeepsie; the Kelsey Highlands Nursery, East Boxford, Mass., and the department of floriculture and ornamental horticulture at Cornell University.

OHIO SHORT COURSE.

Talks Stress New and Better Materials

At the fifth annual nurserymen's and landscape gardeners' short course held at the Ohio State University, Columbus, O., January 24 and 25, under the direction of the floricultural department, the fundamentals of plant growth, as well as the approved practices of culture of nursery plant materials and the uses of various items, were given consideration. Particular stress was placed on the propagation and use of the less commonly grown and better annuals, perennials, shrubs and trees. The large attendance at this course attested the interest in the matters discussed.

As a background for the talks which were to follow, the first two discussions were of fundamental nature. Dr. Joseph H. Gourley, head of the department of horticulture, in explaining how a plant is constructed, stated that the plant may be divided into root, stem and flower, as well as transitional areas. Usually the flower eventually produces seeds, which consist of seed coat, embryo and seed leaves. Within the plant are the following tissues: Pith, or woody structure; cambium, or growing layer; a layer where food materials are transported; a cortex, and bark. He explained that cambium wood may be formed as a healing tissue when a tree is injured and that cells next to the cambium may be as important as the latter in the healing of a graft.

Concerning what makes the plant grow, Gustav H. Poesch, of the uni-

versity, mentioned the factors of light, moisture, temperature and soil, including soil aeration and soil acidity. Ultra-violet light is detrimental to some nursery plants, he said, causing leaf burn. Drought-resistant plants can be developed through plant breeding. Water is important in carrying the soluble fertilizer elements to the plant and in the process of food manufacture.

Though temperature may produce dormancy in stems and buds, roots never become dormant. Light soils are more desirable than heavy soils for the majority of ornamental plants. Trees having roots under pavements suffer because those roots do not get sufficient oxygen, while a mulch that is too heavy may produce the same reaction. Most food elements are more soluble in a slightly acid soil.

Soil Matters.

The first of the afternoon talks, concerning "The Soil and Its Relation to Plant Growth," was delivered by Prof. Richard Bradfield, of the university. Among the high points of his talk might be listed the following: Sodium nitrate is not so likely to be grabbed onto by the soil particles as is ammonium sulphate and is therefore more likely to be leached out than the latter. Superphosphate when added to the soil is fixed at once just where it is applied; therefore, it does no good to apply this fertilizer except in the vicinity of the roots of the plant, shrub or tree.

Potash, it was said, is likely to be leached out of the soil rather soon after application if it happens to rain heavily. Powdered sulphur is, in most cases, better than aluminum sulphate for increasing the soil acidity, while some form of lime is used to decrease the acidity or increase the alkalinity.

Green Manures.

Concerning "The Use of Green Manure Crops in the Soil Improvement Program," Prof. C. J. Willard, of the agronomy department, explained that green manure crops are used mostly to supply organic matter and nitrogen to the soil. The time of plowing under green manures is important, as it affects the percentage of nitrogen and organic matter. Soy beans are probably the most valuable cover crop to be recommended in Ohio. Plow under any time for a month after the beans are well formed in the pod. Sweet clover is good if the soil is alkaline. Mammoth clover and vetch are also suitable, although the seed of the latter is rather expensive.

Prof. Victor Ries, of the floricultural division, discussed "The Characteristics and Uses of New and Rare Annuals and Perennials," recommending the following for trial along with several others: *Verbena venosa*, *Gomphrena globosa* Orange, *Hunneemannia fumarifolia* Sunlite, *Marigold Guinea Gold*, *Snapdragon Rock's hybrids*, *Dahlia Coltness hybrids*, *Lilium philippinense formosanum* and *Statice puberula*.

"The Season's Problems."

While "The Season's Problems" were said to be many, Prof. L. C. Chadwick, of the university, strove to solve some which had perplexed many during the year, if inquiries indicated anything. Azaleas and rhododendrons need good drainage, ample organic matter and an

acid soil, it was declared. *Juniperus virginiana* Kosteri is not considered so good as Pfitzer's juniper. For starting hardwood cuttings, a temperature of 60 degrees for the first two weeks and 45 degrees from then till planting-out time seems best. The germination of juniper, cotoneaster, sorbus and pinus seeds can be increased by holding them at 40 to 41 degrees before sowing, or by sowing in flats in the fall and placing in coldframes over winter, with boards over the glass.

If the soil is reasonably fertile, the speaker said, the use of commercial fertilizers will not affect the growth of young seedlings. Chlorosis of pin oaks may be due to a lack of iron. Root pruning is best done in the fall to increase the number of fibrous roots and help hardness. Additional light will hasten the growth of azalea seedlings. *Chinensis*, *excelsa stricta* and, in some localities, biota are the best stocks for use in grafting junipers.

The Wednesday evening period was given to a discussion of new and rare ornamental evergreens and deciduous trees and shrubs, with Scott G. Harry, of the Ohio agricultural experiment station, Wooster, and Prof. Victor Ries in charge. For rockeries, Mr. Harry suggested the use of such evergreens as *Juniperus virginiana globosa*, *J. communis nana* and, possibly, *Buxus microphylla koreana*. For general planting, *Juniperus virginiana Smithii* was highly praised, also *J. Sabina* Von Ehron, *J. conferta*, *J. virginiana pyramidalis*, *Chamaecyparis Lawsoniana pendula*, *Thuja occidentalis Reidii*, *Thuja Standishii*, *Cryptomeria japonica Lobbii*, *Picea Omorika* and *Pinus koraiensis*. Among the shrubs, *Pyracantha coccinea* was thought worthy.

Professor Ries pointed out the following shrubs as satisfactory in at least a large part of Ohio when used properly: *Berberis verruculosa*, *B. Juliana*, and *B. Gagnepainii*; *Albizia Julibrissin rosea*; *Viburnum fragrans*, *V. rhytidophyllum* and *V. Burkwoodii*; *Neviusia alabamensis*; *Evonymus alata compacta* and *E. obovata*; *Amorpha canescens*; *Daphne Mezereum*; *Robinia Kelseyi*; *Cornus mas* and *C. Kousa chinensis*, *Cotoneaster salicifolia floecosa*, *C. Henryana* and *C. apiculata*; *Ilex verticillata*; *Lonicera thibetica* and *L. Maackii podocarpa*, and *Hydrangea quercifolia*.

Among trees worthy of trial were mentioned *Phellodendron amurense*, *Acer Ginnala* and *A. tatarica*, *Sophara japonica*, *Kelreuteria paniculata*, *Zelkova serrata*, *Fagus heterophylla* and *Quercus Robur fastigiata*. *Actinidia arguta* was spoken of as being a good evergreen vine.

Plant Pests.

The Thursday morning session started with talks concerning ornamental plant pests. Paul E. Tilford, of the experiment station, discussed some of the commoner diseases of ornamentals which occur in Ohio. For juniper seedling blight it was recommended to spray the seedlings during the first two years with a Bordeaux and soap spray. For fire blight, prune out the blighted cankers and paint with a ferric chloride plus alcohol preparation.

To prevent cedar apple rust, do not grow cedars in proximity to apple trees.

For peony blights, clean up the dead shoots, burn the tops in the late fall and spray susceptible varieties with a Bordeaux mixture. For botrytis blight of tulips, discard infected bulbs and either change the position of the planting or drench the soil with a formaldehyde solution before replanting.

In conclusion, the speaker mentioned symptoms of the Dutch elm disease and stated that if anyone suspected any of his trees had this disease he should send the infected portion to the experiment station at Wooster for a culture identification.

Controls.

H. C. Esper, of the university, told of the life history and control of the commoner insects affecting ornamentals. A few of the controls mentioned included the following: For red spider, one pound of glue, plus one pound of Sulphuron to ten gallons of water. European elm scale, one pint of nicotine sulphate, plus one per cent of cheap oil, plus soap, in 100 gallons of water.

For borers, cut off the infested limbs, burning them, and paint any remaining holes with one pound of paradichlorobenzene to two quarts of oil. For elm leaf beetle, spray in early June with arsenate, five pounds per 100 gallons water. For tussock moth, spray in July with leaf arsenate. For rhododendron lace bug, spray with nicotine plus a soap solution several times during the season. For columbine leaf miner, destroy the infested leaves and spray with nicotine sulphate plus a soap spray late in May.

Alpine and Rock Plants.

Beldon Saur, well known rock and alpine plant specialist of Foster, O., was next on the program. He told of the culture and characteristics of the better alpine and rock plants. Those mentioned as noteworthy for this section included *Actinea herbacea* (Lake-side daisy) and *A. stenophylla*, *Allium stellatum*, *Campanula garganica*, *Coreopsis auriculata*, *Cheilanthes tomentosa*, *Ephedra distachia*, *Iris arenarium*, *Lithospermum canescens*, *Phlox glaberrima*, *Pulmonaria rubra*, *Silene pennsylvanica*, *Talinum calycinum*, *Tricyrtis hirta*, *Verbena canadensis* and *Viola pedata bicolor*. In closing, he recommended that nurserymen and landscape men look in this country for suitable rock and alpine plants rather than purchasing so many from England and Switzerland, many of which are unsuited to the climate here.

Dr. J. S. Shoemaker, of the experiment station, next gave a talk concerning small fruits suited to the needs of nurserymen interested in that phase of production. Niagara, Delaware, Fredonia, Concord and Worden were recommended as suitable grape varieties. Premier was suggested as about the best strawberry for the Columbus region. Cumberland was named one of the leading black raspberries. Latham was declared a good red raspberry. Wilder was recommended as a good currant and Downing as a worthy gooseberry variety.

Landscape Speaks.

A discussion of civic and community improvements was given by Carl Frye, prominent Columbus landscape archi-

teet, in which he urged landscape men to consider the future in laying out plans for roadways, parks, airports and other civic and community projects and to work in coöperation with city, county and state engineers and officials.

After a brief rest, the session was continued with a study of the "Identification of Taxus and Ilex," led by Prof. L. C. Chadwick, who by the use of keys prepared by himself showed that these groups, considered two of the most difficult in which to differentiate among individuals within the genus, can be divided quite successfully in the case of Ilex and fairly successfully in the case of Taxus. The use of the keys was explained and a large number of specimens were identified by the use of them.

The final talk on the program was delivered by Prof. Alex Laurie, of the university, and concerned the care of trees. Cavity work was given particular attention. Among the points brought out were that trees that are short-lived and subject to insect and disease attack, trees in groves and trees that are dying should not be filled. In filling a cavity, first clean out the decayed wood, making an oval-shaped hole if possible. Apply some fungicide, such as Bordeaux mixture, and paint the cambium with shellac. Use a dry-mix concrete as a filler. Put in sections of eight inches, separated with 4 or 5-ply tar paper, and fill to one-eighth inch inside the cambium layer and paint the outside of the filling. Some form of bracing was also advised in using concrete.

Due to shortness of time, an entire discussion of planting and maintenance of ornamentals was omitted in favor of questions from the floor, which brought forth the following comments from the speaker: A fertilizer rather high in nitrogen, such as a 10-6-4 combination, is probably most satisfactory for the fertilization of trees. Aëration is important in tree growth and is best obtained, if needed, either by spading up the area under the trees to the extent of the spread of the outer branches or by forcing air into the soil under pressure by an air pump.

CODE TRANSFER TO N. R. A.

Codes for florists and nurserymen, which originally were filed with the Agricultural Adjustment Administration, were transferred to the National Recovery Administration by the executive order issued by President Roosevelt January 9.

Limited jurisdiction over the national florists' code, however, was retained by the Agricultural Adjustment Administration, and under the executive order, this code may not become effective until certain features are approved in writing by the Secretary of Agriculture.

Codes transferred to the N. R. A. without reservation and which will be heard and handled by N. R. A. include those filed by florists of southern California; Austin, Tex.; Colorado; Washington, D. C.; Indianapolis, Ind.; Long Beach, Cal.; New England; New York; San Diego, Cal.; retail florists of southern California; Oklahoma; wholesale florists of northern California; wholesale florists of San Diego, Cal.; nurserymen, dealers, Tacoma, Wash.; nurserymen, landscape, St. Louis; nurserymen, producers, south and southwest regions.

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The jurisdiction retained by the Secretary of Agriculture over the florists' code extends to:

1. Prices in connection with the purchase of agricultural commodities from producers and the subsequent sale or disposition by first processors of the first processed articles.
2. Brokerage fees involved in the purchase of agricultural commodities from producers and the subsequent sale or disposition by first processors of the first processed articles.
3. Credits and financial charges with reference to agricultural products.
4. Commission rates in connection with the purchase of agricultural commodities from producers and the subsequent sale or disposition by first processors of the first processed articles.
5. Purchasing arrangements with regard to agricultural commodities in their original form.
6. Marketing quotas in connection with the purchase of agricultural commodities from producers and the subsequent sales or disposition by first processors of the first processed articles.
7. Plant capacity and/or its allocation.

The florists' and nurserymen's codes will be handled by a new division created in N. R. A., known as division 6, for which an administrator has not yet

been chosen. George Carlson, C. W. Dunning and Walter White will be deputy administrators, with S. R. Truesdell as executive assistant.

S. A. F. HAS WORLD'S FAIR EXHIBIT.

It was announced last month that the Horticultural building at A Century of Progress, Chicago, has been taken over by the national flower and garden show committee of the Society of American Florists. The world's fair will be carried through the summer of 1934, as the country and the world generally know, and horticulture will be represented by a project operated and owned by the parent society of the trade. George Asmus, Chicago, chairman of the national show committee, is general manager. John A. Servas is associate manager, with offices at 845 South Wabash avenue, Chicago.

OPEN NATIONAL SHOW OFFICES.

Under the direction of Miss Florence Wade, acting secretary of the S. A. F., and George B. Hart, local chairman, headquarters for the fifteenth annual national flower and garden show were opened in the Seneca arcade, Rochester, N. Y., last month. The Seneca arcade is connected with the Seneca hotel, headquarters for the S. A. F. convention.

Pruning Young Trees

Cornell Tests on Pin Oaks

The question of the method of pruning a newly planted shade tree has been of interest to us recently. Ordinarily, when a home owner buys a shade tree to plant on his property he likes to see immediately a well headed tree that is a small imitation of what the mature tree should look like. For this reason he cuts off all the lower branches along the trunk, leaving only a few remaining branches at the top of the tree. This is particularly true of young trees planted along streets. Then, to his mind, this represents the ideal method of pruning such a tree.

However, the average home owner who purchases such a tree also wants quick results. He does not have the money to buy a mature tree with a trunk diameter of ten to twelve inches and pay all the accompanying expense of moving it onto his property. He can only afford a smaller tree, of a few inches in diameter. Consequently, his method of pruning this tree is important if he wants maximum growth in a short time. In order to compare the effects of two methods of pruning on

but total twig elongation is the final objective in such experiments, and when this can be measured easily, it should be done. The trees are growing rapidly now, but this method of measurement can be used for a year or two yet. Statistical methods were used in analyzing all the results.

Two types of pruning were used. On one set of trees a definite total length of branches was left, with these branches arranged all along the trunk. On the other set of trees a similar total length of branches was left, but this was all at the top of the tree. The results are given in an accompanying table.

Tests with Cornus.

This experiment was also tried on twenty *Cornus Kousa chinensis* plants. These plants had a total branch length of about thirty-six inches when selected as uniform plants in the nursery. They were potted and placed in the greenhouse during the early spring of 1933. Ten of the plants were stripped of buds and small branches all along the main

stripping these young shade trees in order to give a clean trunk from some distance from the ground inhibited growth for the first few years after transplanting. (The odds in favor of one treatment over another should be greater than 30:1 to be significant.)

The increase in caliper for 1931 was approximately .20 cms.; 1932, .31 cms., and 1933, .25 cms. It is readily seen that the increase in caliper is extremely small, and since pin oaks at this age tend to have an irregular trunk, the error incident in making the measurements is rather great. Consequently, results are based on total elongation rather than caliper increase.

In a study of the table it is readily seen that the odds are decidedly in favor of leaving the branches all along the trunk. Even the first year, though the odds are not significant on each individual plot, when taken as a whole they are significant.

If the home owner is interested in getting a maximum amount of growth on his young shade trees, he should prune some of the branches in order to make up for the roots lost in digging, but he should also leave branches all along the tree trunk rather than at the top of the trunk only. After several years of vigorous growth there will be time enough for stripping the lower branches.

Donald Wyman.

Total growth per tree (in feet) of trees pruned with branches all at the top or distributed along the trunk.

| Time of Planting | Branches at Top I | | | Branches along Trunk—II | | | Odds in Favor of II over I | | |
|------------------|----------------------|-------|-------|-------------------------|-------|-------|-------------------------------|-------|-------|
| | 1931 | 1932 | 1933 | 1931 | 1932 | 1933 | 1931 | 1932 | 1933 |
| Fall | 3.88 | 17.83 | 18.28 | 3.20 | 26.65 | 23.80 | not sig. | 525:1 | 262:1 |
| Spring | 2.56 | 13.33 | 14.50 | 3.57 | 20.35 | 20.54 | not sig. | 344:1 | 666:1 |
| | | | | | | | Total odds 95:1 9999:1 1999:1 | | |

the growth of the tree, the following experiments were carried out by the department of floriculture and ornamental horticulture at Cornell University, Ithaca, N. Y.

Sixty Pin Oaks Used.

The pin oak was selected for the experiment, as it is a good example of a rather slow-growing valuable shade tree. Sixty trees eight to ten feet tall were selected. They had been all grown from the same seed lot on the same field. They were selected after six years of growth for their apparent similarity and were apparently as nearly alike as it was possible to obtain them. These trees were planted in the fall of 1930 and the spring of 1931. The entire area was then sown with Kentucky blue grass seed and kept under lawn conditions ever since. (This was done more on account of accompanying fertilizer experiments than on account of the pruning experiments.)

At the end of each growing season the amount of total growth made by each tree in the experiment was taken. This was done by measuring the actual elongation of every twig and branch on the tree. A string, knotted at foot intervals, was used in measuring and its use proved a good and comparatively fast method of taking these readings.

The increase in trunk diameter two and one-half feet above the ground was also taken. This, of course, is generally accepted as being a fairly accurate method of measuring growth increase,

stem except for the top six inches. A similar amount of buds and small branches was taken from the ten remaining plants except that the buds and branches left were distributed along the trunk. Those with branches left only at the top grew an average of 20.4 feet, while those with branches along the trunk grew an average of 36.0 feet, with odds over 9,999:1 in favor of the latter. Consequently,

LANDSCAPE HIGHWAY.

Christian county, Illinois, is to landscape route 18 using C. W. A. labor. Native shrubs and American elm trees will be used.

Workmen have been grading the highway and planting the trees since December 15, and the work is progressing as rapidly as weather conditions permit. This project is sponsored by the state highway department. The landscaping is being done under the direction of Mr. Seiler, of Pana, and L. P. Drummond, Rosamond Nurseries, Rosamond.

H. H. CUMMINGS, nurseryman of Melba, Ida., recovering from a major operation, is spending the winter with a son, J. L. Cummings, Wenatchee, Wash.

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EVERGREENS UNDER CLOTH.**Tests Made at Ohio University.**

It has been a customary nursery practice to grow small plants in lath houses. A preliminary test was conducted during the past summer at Ohio State University, Columbus, to determine the reaction of narrow-leaved and broad-leaved evergreens growing in tobacco cloth houses such as used for growing asters and other annuals for cut flowers. The results are reported in the mimeographed "Nursery Notes" sent to Ohio nurserymen by Prof. L. C. Chadwick.

Part of a house 32x96 feet was used for the test. The house was divided into two equal parts. One part was covered with white cloth and the other half with yellow cloth. Small 1 to 2-year plants from cuttings were used for the test. The plants used included eight narrow-leaved evergreens—*Thuja occidentalis* Hovey, *T. occidentalis* pyramidalis, *T. occidentalis* Woodwardii, *T. plicata* elegantissima, *Juniperus chinensis* Pfitzeriana, *J. horizontalis*, *J. Sabina* and *Taxus cuspidata*—and four broad-leaved evergreens—*Buxus sempervirens* angustifolia, *Cotoneaster Henryana*, *Lonicera nitida* and *Pyraeantha coccinea* Lalandii. Three varieties of *Azalea indica* were also used under the cloth inclosure; however, no difference was observed in their growth under the white and yellow cloth.

With the narrow-leaved evergreens, seven of the eight types were best under cloth and one was best in the check plot (planted outdoors under irrigation).

All of the broad-leaved types were best under the white cloth and considerably better than those planted outdoors without shade (except for lath shades until they became established). *Pyraeantha* grew much better under cloth.

Fundamental Factors.

The fundamental factors which were responsible for the superior growth of plants under cloth were temperature, light intensity and moisture of both soil and air. Records showed that the air temperature was from 1 to 3 degrees higher under cloth than outdoors. This was due to lack of air circulation under cloth. The light intensity was reduced from six to ten units by the cloth. Soil moisture remained higher in the inclosure, due to less evaporation. The moisture of the air was also higher in the inclosure than without. The higher humidity of the air, moisture of the soil and temperature were probably the factors most responsible for the better growth under cloth.

Whether or not cloth inclosures are practical units for nurserymen to maintain would depend upon the individual practices. The cost of constructing such cloth inclosures, including material and labor, would amount to approximately 2½ to 3½ cents per square foot, depending upon the price of cloth. The cloth itself lasts only one season and amounts to one-third to one-half of the total cost.

ZINC CURE FOR PECAN ROSETTE.

Zinc sulphate application is a promising treatment for the rosette disease of pecans, the United States Department of Agriculture is convinced after three seasons of practical tests. But the department also warns growers not to overdo the treatment. On soils some

zinc sulphate may act to increase the acidity of the surface soil and also of the subsoil, and the treatment is still so new that the scientists have not had time to find out whether continued heavy applications of the zinc salt may prove injurious. They advise growers to treat rosetted pecans, but to move cautiously and keep within the limits of treatments that have already been tested. Lime will usually correct acidity in surface soil, but if the subsoil should be made too acid it might be expensive or impractical to correct the damage.

The scientists have found zinc sulphate helpful when applied as a spray, either separately or as an addition to Bordeaux mixture. The salt may also be used in holes bored into the trunks of the trees. Or it may be applied as a top-dressing on the soil under the trees. The quickest results follow spraying with one pound of zinc sulphate to fifty gallons of water on young growing shoots. At this concentration the spray does not injure the foliage. Three applications at 30-day intervals beginning in April have been effective. Added to Bordeaux mixture, the zinc is not quite so effective in controlling rosette, but is fairly satisfactory.

DAMAGES of about \$1,000 were incurred by I. E. Ilgenfritz Sons Co., Monroe, Mich., when fire broke out in the wooden shed at the nursery the night of January 17. It is believed the blaze was started by tramps.

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Comments on Less Common Varieties

SEDUM POPULIFOLIUM.

Sedum populifolium is one of the stonecrops which stands out by its leaf characters, if in no other way, from all of its kin. When it is carrying its poplar-like leaves, as much as three-quarters of an inch long, there is no reason for mistaking it for any other species. Yet, it has been received two or three times for identification during the past year, bearing labels of a Mexican species, *S. oxypetalum*, in one case.

S. populifolium is a shrubby plant that gets about a foot high in my garden, although it is said to go half again as high under high culture. The petioled leaves are flat, somewhat fleshy, definitely poplar-shaped and toothed throughout. The August-borne flowers are white (some authorities say pale pink) and of a pleasing fragrance, a rare thing in sedums. From the garden standpoint, this variety is a good stonecrop, fitting into many a picture in border or rock garden. The plant is easy to grow in any sunny spot, but propagates slowly.

SAPONARIA PULVINARIS.

Next to *Saponaria pumilio*, the soapwort (*S. pulvinaris*) is about the best of the genus and almost as hard to obtain. If you want to know just how hard it is to get, look through your catalogue file. *Pulvinaris* makes perfect mats of fine foliage over which shine myriads of light red (pink by courtesy) flowers on 1-inch stems. It is for the scree, or, in the absence of that, for a well drained soil where it will receive attention during long dry periods.

SILPHIUM TEREBINTHINACEUM.

The rosinweeds (*silphiums*) seem to have made little impression on the general run of gardeners. Whether this is because the plants are composites or because of the fact that some of them are common weeds in the middle west, it would be useless to speculate upon. It remains a fact, though, that few of them are known in gardens. This should not be true of at least one, *Silphium terebinthinaceum*, the so-called prairie dock, which makes an impressive subject for the hardy border. In good soil and full sun, this variety will attain a height of five or six feet, with foot-long leaves, mostly at the base of the plant. Its heads of yellow sunflower-like blooms from midsummer until late September are not to be despised. The variety is propagated easily from seeds or by division.

MOLTOKIA GRAMINIFOLIA.

The classification of *Moltkia graminifolia*, as is that of many another plant, is confusing because of botanists' playing with the plant after it had been assigned a pigeonhole in their scheme. To some botanists it is known as a *moltkia* and, to others, as a *lithospermum*. In garden literature it is almost universally recorded as *Lithospermum graminifolium*. As the only apparent differences between the two

genera are the exerted stamens of *moltkia* and some differences in the nutlets, you may take your choice. In any event, the plant is worthy of your attention as a horticulturist.

It makes a mat of rosettes of narrow grassy leaves, pale green and gray beneath, the whole not over two, or possibly three, inches high. In June numerous 4-inch to 6-inch flower stems are thrown up, with sky-blue tubular flowers dangling from the tips.

ERIGERON LEIOMERUS.

Any *erigeron* (fleabane) that you do not know should be suspected of being a weed until it proves itself otherwise. This observation is not meant to condemn the entire genus, for in it are to be found some truly lovely things, but rather to bring out the fact that there are numerous unworthy species bearing the name which sometimes appear in seed and plant lists. Not to be numbered among the latter, however, is *Erigeron leiomerus*, a fine western American alpine of fairly easy culture. It makes mats of narrow leaves up to three inches long, over which sparkle blue daisies during part of May and June. Many true alpine are indifferent doers in our eastern climate, but this one seems willing enough if one or two precautions are taken. First, it, as well as many another alpine plant, seems better satisfied when given some shade during the hottest part of the day. In the garden, this may be accomplished by putting a large rock between the plants and the noonday and afternoon sun; in the commercial establishment, they may be grown in the lath house

or a lath-shaded frame. The soil should be light and contain some moisture-holding material, such as leaf mold. This variety is easily propagated from seeds or by division.

ANDROSACE LANUGINOSA.

If you are growing rock garden plants, your customers are sure to want *androsaces*, even though the buyers are not prepared by experience and with equipment to care for the plants. It is best in that case to be prepared with something good and easy. *Androsace lanuginosa* answers that description well insofar as its beauty is concerned. And it is not too difficult if one or two requirements are kept in mind.

The usual recommendation to give *androsaces* full sun is not meant for middle western conditions. A few days of midsummer sun will fry the toughest *androsaces* into an unrecognizable mass. Give them the protection of a rock, though, and a scree soil and there will be little trouble with the so-called terrestrial group, of which the subject of our sketch is a member. The *aretia* group is an entirely different matter that is not to be attempted without a well constructed moraine.

A. lanuginosa is made up of trailing silvery stems, making, when happy in its surroundings, streams of silver which are beautiful enough in themselves. In spring and again in fall, when the plant raises its soft rose umbrellas, on 3-inch or 4-inch handles, it is indeed something to rave about. The variety may be grown from seeds or cuttings, preferably the latter after a stock is secured. The growing of *androsaces* from seeds is a slow and tedious process that requires no more skill than in the case of any other delicate plant. It is usually best, though, to handle the seedlings in pots until they are ready to be planted out permanently.

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SOME NEW AND RARE PLANTS.

Annuals.

The characteristics and uses of some new and rare annuals and perennials were given by Victor H. Ries, of the department of horticulture, in a talk at the nurserymen's short course at Ohio State University. The following annuals were discussed:

Antirrhinum Rock's Hybrid.—Grows from six to ten inches tall and gives a good bloom. Compact and showy. If protected, can be held over through the winter for a second season's bloom.

Petunia nana compacta Pink Gem.—A dwarf, compact plant, five or six inches tall. Densely covered with pink flowers about two inches across. Can be used well for bedding, edgings and porch boxes.

Statice sinuata Kampf's Improved.—A purple flower, growing quite well.

Gilia coronopifolia.—Grows from two to two and one-half feet tall. Has white, pink and yellow flowers, which are very attractive.

Hunnemannia fumarifolia Sunlight.—This flower is semidouble. Plant grows eighteen inches high, similar to a California poppy. Blooms throughout the summer.

Verbena venosa lilacina.—One of the most satisfactory bedding annuals with lavender flowers. Grows twelve to fifteen inches tall.

Mesembryanthemum euniflorum.—Commonly known as the Livingstone daisy. Can be grown in hot, dry places.

Marigold Guinea Gold.—An attractive marigold, used quite extensively. Its odor is not so bad as that of the other marigolds.

Asclepias curassavica.—This has a dark orange or brown flower. The leaves of the plant are a dark green. It is from two and one-half to three feet tall, blooming from the last of July until frost. The flower is not so brilliant as the hardy orange milkweed to which it is related.

Aster Sunshine.—A pleasing type.

Gomphrena globosa Orange.—This has a dull salmon flower. The plant is, however, loose and open, but it gives a mass of constant blooms.

Statice puberula.—A dwarf form of statice, the same color as the statice mentioned before. Grows six to eight inches high.

Nierembergia gracilis.—Has the appearance of a pale-colored flax. Used in hanging baskets or porch boxes. It must be dug in the fall and taken in and cuttings taken from it.

Perennials.

The perennials discussed were as follows:

Doronicum Pardalianches.—A native of Europe. Grows three to four feet tall and blooms in late June and July, a month later than the others.

Trollius Ledebouri Golden Queen.—Has yellow orange golden flowers, blooming in late June and early July.

Hollyhock Orange Prince.—Attractive double orange hollyhock.

Dianthus deltoides erecta.—Compact, not spreading like the others.

Scabiosa Columbaria, pink.—May be hardy in some places and not in others.

Lilium pailippinense formosanum.—

The seed can be sown indoors in February and will bloom by fall. This resembles a regal lily and grows from two and one-half to eight feet tall.

Pentstemon Cobæa.—The flowers are about the size of the end of your finger and are a sky-blue color.

Artemisia frigida.—Used mainly for its foliage effect. Grows eighteen inches tall.

Coreopsis Mayfield Giant.—A good improvement over the other types.

Dianthus cæsius arvensis.—An interesting dianthus.

Silene pennsylvanica.—Sometimes called *Silene caroliniana*. Found growing on exposed banks and plain crushed shale. It prefers an acid soil.

Lilium candidum Salonica.—Worth trying.

Papaver nudicaule Gartref.—Sown in spring. Can be sold in bloom in the fall. Use as cut flower.

Rudbeckia hirta hybrida.—A satisfactory perennial.

Primula Belvidere hybrids.—Vigorous primrose, fifteen to eighteen inches tall. Belongs to polyanthus group.

Spigella marilandica.—Native in central and south part of the state. Has brilliant red flowers and will grow in any garden soil that is not exceedingly dry.

MORE than forty carloads of rosebushes are being shipped east this year by the Western Rose Co., North Los Angeles and Sepulveda, Cal. The company intends to double its acreage this year.

O. W. WATSON is operating a nursery at 3200 Millwood avenue, Columbia, S. C., having bought the property formerly known as the Mecklenburg nursery. Associated with Mr. Watson is R. A. Keeling, landscape gardener.

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New Books and Bulletins

NEW GARDENS FOR OLD.

If the yard is to be considered an outdoor living room, it seems quite logical that it, like other parts of the residence, deserves at least an annual house cleaning, or renovating. Such is the theme of "New Gardens for Old," a 196-page book by Architects H. Stuart Ortloff and Henry B. Raymore, that, in keeping with the times, promises a new deal for the malformed, outmoded, neglected or incomplete home planting. Doubleday, Doran are the publishers.

"Most books on garden design," say the authors, "presuppose a fairly ideal condition. They discuss the development of new places which have no plantings and on which even the house is still to be built. This book is for the person whose place is planted and who wishes to make the most of what he has."

The authors have accordingly selected for discussion the principal faults likely to be found in the various parts of an improperly designed planting, including the borders, flower beds, inclosures and foundation plantings. Eminent practical pointers are given to correct the ills, if they be discovered.

The following chapter headings appear: "Making the Most of the Garden," "Renovating the Home Grounds," "Redesigning the Small Place," "Design in Planting," "Applying Landscape Principles," "Arranging the Flower Border," "Lawns" and "Care and Maintenance." Half tones and drawings accompany the text, as well as a 14-page index of subjects and materials.

If it is not an encyclopedia of landscaping, "New Gardens for Old" is certainly the fitting companion of the nursery stock salesman who volunteers or is called on to diagnose the sources of displeasure in plantings. As propaganda designed to agitate the home gardener and develop a critical attitude that is more than likely to result in an order for additional stock, the book also has its merits and might be given or sold to customers with equally effective results. The many planting lists and the suggestions on materials for special purposes should have a further sales value.

The book is offered for sale through The AMERICAN NURSERYMAN at the publishers' price, \$2.15, postpaid.

1934 TRADE DIRECTORY READY.

Distribution is now being made of the sixth edition of the "Horticultural Trade Directory," published by the A. T. De La Mare Co. Since the fall of 1931, when the last previous edition was issued, there have been great changes in the trade personnel. Thousands of firms have gone out of business, many after long years of activity, but thousands of others have entered the ranks. It is not surprising, therefore, that many pages in the new "Directory" have scarcely a dozen names remaining as they were in the 1932 book.

Besides functioning as an invaluable directory for the florists' seed, nursery and allied industries, the new edition has numerous pages of useful general information. Such are the summarized final figures from the 1930 census, a large list of horticultural firms publish-

ing catalogues, summarized federal plant quarantines, lists of botanic gardens and arboretums, of institutions where horticultural research is being carried on and of cemetery and park superintendents and an extensive buyers' guide.

New material includes a simple book-keeping system, hints on conducting flower shows and data on plant patents, providing the regulations and a list of the patented plants to date. Of particular interest, also, is the increase in number of horticultural trade organizations listed, nearly half as many more swelling the previous record.

The AMERICAN NURSERYMAN offers the new "Directory" for sale at \$5 each for paper-bound copies and \$6 for the cloth-bound volumes, postage prepaid on either.

BEST APPLE VARIETIES.

Prof. L. H. MacDaniels, of the New York State College of Agriculture, says that the modern trend in commercial apple growing is to concentrate on a few varieties which have a good market demand. Five of the best varieties for commercial planting in western New York, he says, are the Baldwin, McIntosh, Northern Spy, Rhode Island Greening and Wealthy. He adds that the Cortland is a variety of considerable merit. In the Hudson valley the Red Delicious has given favorable results.

Circular 103, a bulletin containing a carefully prepared list of fruit varieties recommended for planting in New York state, may be obtained on request from the New York state agricultural experiment station.

RASPBERRIES

"Mosaic Free"

Latham and Chief

ANDREWS NURSERY CO.
Faribault, Minnesota

FREDONIA-GROWN

Grapevines — Currants
Raspberries

WEST HILL NURSERIES,
M. E. Roesch, Mgr. Fredonia, N. Y.

MASTODON EVERBEARING STRAWBERRY PLANTS

For sale in quantities from 1000 to 100,000 plants. Write for prices.

SOUTH MICHIGAN NURSERY
Box W10, New Buffalo, Mich.

GRAPEVINES, CURRANTS

GOOSEBERRIES and BERRY PLANTS

All leading varieties, as Portland, Fredonia, Sheridan, Ontario and Cace grapes. Specializing in the growing of these items for forty-two years. WE KNOW HOW. Let us quote on your requirements.

THE F. E. SCHIFFERLI & SON NURSERIES
FREDONIA, NEW YORK

AMERICAN NURSERYMAN

PLANT PROPAGATION.

Methods of propagating fruits and ornamentals, such as roses and evergreens, are given in considerable detail in a well illustrated pamphlet which has just been issued by the New York experiment station at Geneva. "Plant Propagation" is the title of the circular and it has been prepared by Dr. H. B. Tukey, who is in charge of nursery stock investigations. A copy of the publication may be obtained upon request to the experiment station.

In the new circular, Dr. Tukey discusses the practical application of the various methods of propagation, particularly with regard to fruits. Information is also included on the propagation of roses and evergreens and on other ornamentals. The various steps in grafting, budding, layering, etc., are well illustrated.

THE Pioneer Nursery, Monrovia, Cal., was sold at auction January 5. The nursery, started in 1876, was the oldest enterprise at Monrovia.

APPLE AND PEACH TREES

We offer a complete assortment of the finest apple and peach trees to be found in America. Trees are scarce and if you anticipate needing any apple or peach get covered on your requirements now. Submit your list of wants for quotations.

Wanted—Apple Seedlings
Quote on what you have to offer.

HARRISON'S NURSERIES, Inc.
Berlin, Maryland

PEACH PITS

OUR PITS COMPARE FAVORABLY
WITH THE BEST

HOGANSVILLE NURSERIES
Hogansville, Georgia

CHIEF and LATHAM

Red Raspberry plants for sale in large or small quantities. Also Cumberland Black Raspberry tips and transplants. Blackberries and other small fruit plants.

F. C. Stahelin & Son, Box 101, Bridgman, Mich.

Apple, Peach, Evergreens
and Heavy Privet
for sale at a bargain.
Quality cannot be beat.

Blountville Nurseries, Inc.
Blountville, Tenn.

SPECIALTIES — Small Fruit Plants

Grapevines, Currant, Gooseberry, Red and Black Raspberry Suckers and Trans. Strawberry, Rhubarb, Asparagus

L. J. Rambo's Wholesale Nursery
Bridgman, Michigan

J. & P. PLAN CAMPAIGN.

An advertising campaign will be carried on this spring by the Jackson & Perkins Co., Newark, N. Y., the purpose of which is to create consumer demand and assist dealers in selling Jackson & Perkins Co. rose novelties. The Golden Climber rose will be featured, being offered to the public for the first time this spring. Other Jackson & Perkins Co. patented roses featured in the 1934 campaign will be Blaze (plant patent No. 10) and Countess Vandal (plant patent No. 38).

The advertisements, many of them full pages in color, will appear in the early spring issues of garden magazines.

The newest Jackson & Perkins Co. creation, Golden Climber (Mrs. Arthur Curtis James), (plant patent No. 28) is a refreshing innovation in yellow climbing roses—a true climber with rich golden blooms of the hybrid tea type produced singly on stems eighteen to twenty-four inches long. It has pointed buds flecked with dashes of orange scarlet. In full bloom, the rose is semi-double, ranging from four to five inches in diameter, with a heavy tuft of nankeen yellow stamens; it is a long bloomer with glossy foliage. It has brownish wood and red thorns, making it attractive even after the flowering season.

Golden Climber won the gold medal in 1933 awarded by the Massachusetts Horticultural Society for exceptional and outstanding blooms. It also won the American Rose Society's medal for the best rose at its annual meeting last year.

FIND EVERGREEN CLEANER.

Announcement was recently made by the Mellon Institute of Industrial Research, Pittsburgh, Pa., that efforts to discover a detergent chemical that would remove smoke film from evergreens without injuring the foliage appeared to be meeting with success. The material used in the cleaning solution is Calgon, a form of sodium phosphate.

In city plantings and those of near-by areas, smoke-laden atmosphere is one of the chief deterrents to the successful culture of evergreens. It has been found that the film of ash and carbon particles deposited on the foliage, cemented on by tar and unburned oil, completely shuts off the sunlight in many instances and therefore causes the plant to die.

CLASSIFIED ADVERTISING

NURSERY ACCESSORIES

Nursery Tools, Leonard Full-strapped Spades, Kunde Knives and Shears. Budding and Grafting Supplies. Free 80-page wholesale catalogue illustrates 600 tools.
A. M. Leonard & Son, Piqua, Ohio.

NURSERY STOCK

California Privet, Lombardy Poplars, Oriental Planes, Shrubbery, Evergreens, Perennials, etc., at special prices. Westminster Nursery, Westminster, Md.

Shade Trees of ten varieties, up to 2 1/2 ins. Hard Maple liners, 5 to 7 ft., as low as 10c. Need some fruit trees and other lines. Perry Nurseries, Perry, Iowa.

Japanese Cherries and Crabs, up to 12 feet; Magnolias, Lennel and Soulangeana, up to 10 feet. A. E. Wohler, Narberth, Pa.

Maclura Aurantiaca Seed (Osage Orange Hedge), wholesale and retail. Export business a specialty. Ray Wickliffe, Seneca, Kan.

Robinia Pseudacacia, seed of 1933 harvest. Maison Nicola Gribaldo, Padova, Italy.

Water alone will not remove this film, and ordinary cleaning materials harm the plants.

The Calgon used in the experiments is applied in a two per cent solution in water, accompanied by a small quantity of pure soap, largely to assist in the spreading action. A little kerosene would provide the same spreading action and be good for some insecticidal purposes, if needed, it is stated.

To make twelve gallons of solution ready for application to the evergreens, one quart of a thirty per cent solution of Calgon is mixed with two ounces of pure soap and then stirred into water. This quantity of solution is enough for two thorough sprayings of a dozen ordinary rhododendron bushes. In the experiments, the plants have been kept wet with the spray solution for thirty minutes and then given a hard rinsing with a garden hose.

It is not yet known how many sprayings are required to remove the film completely. It has been determined, however, that in order to get immediate results in one operation, sponging of the leaf surfaces can be added to the spraying and complete success achieved within half an hour. This was proved on both rhododendron clumps and blue spruces. Further progress reports will be issued subsequently by the institute.

EFFICIENT HOSE COUPLER.

Time is saved and bother eliminated, it is claimed, through the use of a new hose coupling device, marketed as the Tradur hose connector by the O. F. Dufrey Co. The coupler is useful for joining hose to hose, faucets, sprinklers, etc., a quarter of a turn of a ring part being all that is necessary to make a nonleaking connection, even with high pressures. No springs, hooks, levers or special washers are required.

OBITUARY.

John Wilkinson.

John Wilkinson, nurseryman of Hogansville, Ga., 62 years old, died January 16, having been ill for about four months. He established the Hogansville Nurseries approximately twenty-six years ago and steadily built up the business which he operated until his death. He was born near Hogansville and since boyhood lived in that city. He was a member of the deacon board of the First Baptist church, of the city council and of the Kiwanis Club, being also a Shriner. He is survived by his widow; a son, John Wilkinson, Jr.; a daughter, Mrs. J. Sherwood Jones, Jr., and two sisters.

THE Waynesboro Nurseries, Waynesboro, Va., have been incorporated by E. M. Quillen, E. D. Quillen, John M. Darnell and W. J. Billerbeck. The firm is an outgrowth of the Titus Nursery Co., Waynesboro, of which E. M. Quillen is general manager. E. D. Quillen and Mr. Darnell are in the sales department of the Titus Nursery Co., and Mr. Billerbeck is in charge of the office of the company at Baltimore, Md.

Oneco, Fla.—A meeting of creditors of Reasoner Bros., who operate the Royal Palm Nurseries, was called for February 1 at the office of H. P. Baya, referee in bankruptcy, First National Bank building, Tampa, Fla.

MILTON NURSERY CO.

A. Miller & Sons, Incorporators
MILTON, OREGON

Complete line fruits, shades, ornamentals, fruit tree seedlings, Roses, Peonies, 135 varieties. Send us your want list. Although well "sold up" on some items and grades formerly in surplus we hope to supply your needs. Following are a few specialties:

Maples:

Norway, Schwedler, Sugar, whips or branched; Globe Norway, top-worked.

Birches:

Cut-leaved Weeping, European, white; Pyramidal European, white.

Japanese Flowering and Weeping Cherries.

Chinese Elm

(Ulmus Pumila) seedlings and transplanted trees, well branched, straight and smooth.

Locust:

Globe-headed and Robinia Hispid, pink-flowering, each 2 and 3-year, top-worked heads.

Hawthorns:

Paul's Scarlet and Washington (Cordata).

Roses:

Oregon field-grown, extensive list of varieties.

Peony:

Officinalis Alba Mutabilis, Rubra, Sanguinea Plena (earliest-blooming peony), Rubra Superba, 3 to 5-eye divisions, and 8 to 12, 12 to 15-eye, undivided.

Seedlings:

Pear, Mahaleb, Mazzard, Myrobalan, Chinese Elm (Ulmus Pumila).

Combination car lots to middle west and Atlantic points minimize freight costs. Write for our latest list with reduced prices.

CHINESE ELM SEED

1934 Crop. Hardy North China strain. Shipment in May.

WASHINGTON NURSERIES

Toppenish, Wash.

CHINESE ELM SEED

Home-grown from select trees. The hardy Siberian strain. Wonderfully rapid-growing. Remarkably uniform in type. Fine root-system. Lowest market prices. Also, seedlings in all grades.

HOME NURSERY, Richland, Wash.

NEW AND RARE NURSERY STOCK

BRUCKENTHALIA spiculifolia. Hardy, heather-like plant, fragrant pink blossoms.
ILEX PENNYI. The new heavy-bearing holly.
DAPHNE Cneorum. The new free-blooming strain; hardy; all sizes from liners to specimen plants.

Stock limited; place your order early.

THEO. ALBERT

Centralia, Wash.

PIN OAKS

Lining-out sizes

6-9, 9-12, 12-18 and 18-24 inches

Large Trees for permanent planting
5-6, 6-8 and 10-12 feet

Arthur L. Norton Nurseries
Clarksville Missouri

THE Abilene Nursery, Abilene, Tex., has been purchased from J. R. Masterson by Mrs. N. B. Davis.

MORE than fifty nursery establishments are using FELINS Tying Machines

One nursery alone
is using seventeen

There is a reason—

FELINS
2950 N. 14th St.
MILWAUKEE, WIS.

A NEW PRODUCT



DOG-SKAT TO CHASE AWAY DOGS

A NEW PROFIT FOR YOU

"Dog Skat" is a new and unique product made by the makers of the famous Hammond insecticides. It is a product that you can handle with almost no trouble—providing you with another quick-selling profit item. Display it and sell it on sight to those who are annoyed by dogs around their fine trees and shrubs. Dog Skat is a solidified chemical packed in a tube, like tooth paste. Remove the cap, suspend the tube by its attached wire on the tree trunk. A gas is given off continuously which humans cannot detect but which animals cannot stand. It is non-poisonous, malleable. One tube lasts a year. For full particulars about this new profit item, address:

Hammond Paint & Chemical Co.
BEACON, N. Y.

EVERGREEN TREES

| | Age | Size | Per 1000 |
|--------------------|-----------|-----------|----------|
| Norway Spruce | 3 yrs. TT | 12-18 in. | \$22.00 |
| Norway Spruce | 3 yrs. T | 10-15 in. | 14.00 |
| White Spruce | 6 yrs. TT | 12-18 in. | 22.00 |
| White Spruce | 3 yrs. T | 8-15 in. | 14.00 |
| Blue Spruce | 3 yrs. S | 4-6 in. | 10.00 |
| Blue Spruce | 3 yrs. TT | 6-10 in. | 30.00 |
| Black Hills Spruce | 3 yrs. S | 4-6 in. | 10.00 |
| Austrian Pine | 4 yrs. T | 8-15 in. | 20.00 |
| Mugo Pine | 3 yrs. S | 2-4 in. | 5.00 |
| Mugo Pine | 4 yrs. T | 5-10 in. | 14.00 |
| Mugo Pine | 5 yrs. T | 8-12 in. | 16.00 |

250 of the same kind and size at 1000 rate.
Cash with order. No packing charge.

Western Maine Forest Nursery
Dept. AH FRYEBURG, MAINE

*Always Consult
The Nurserymen's Credit Guide
Before you ship:*

NATIONAL NURSERYMEN'S CREDIT BUREAU, Inc.
612 N. Michigan Ave., Chicago

Write for Samples and Price List

SAXOLIN DUPLIX CRINKLED

**COSTS
LESS THAN
BURLAP**

**DOES A
BETTER JOB**

**MAKES
CLEAN - NEAT
BUNDLES**

**KEEPS THE
MOISTURE IN**



We will send full size working samples that will prove in your own shipping room that **SAXOLIN** is superior to any other wrapper for retaining dirt and moisture around the roots and delivering a clean, attractive package.

SAXOLIN is two sheets of kraft paper cemented with asphalt filler and crinkled to stretch and conform to shape of bundle.

It's waterproof—tough and easy to handle.

If you are using any special size material for wrapping tell us the size and we will send samples. Try **SAXOLIN** now and be ready for your next shipping season.

CHASE BAG Co.

Specialty Dept. -- Cleveland, Ohio

Patent 1910152



TRADUR HOSE CONNECTORS

Quarter turn of ring—all that's necessary to obtain non-leaking connection of hose to hose, faucets, nozzles, sprinklers, sprayers or other equipment.

Designed and made like a fine tool to give constant and continued satisfaction and durability, but priced so anyone can afford to use them.

The merits of Tradurs are best proved by the sales made through recommendations of large and small users, who know their convenience and time-saving advantages.

They make a profitable and highly satisfactory item for sale by landscaping, nursery and other firms having service or marketing contacts with institutions, private homes and estates.

O. F. DURFEY CO., DARIEN, CONN.

**LABELS FOR NURSERYMEN
THE BENJAMIN CHASE COMPANY
DERRY, N. H.**